

Case assessment

Psychology



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Relationship between Gamma Waves and Language Relationship between Gamma Waves and Language Scientists studying the brains of children have discovered that the strength of their brain waves could determine their language ability. Researchers from ScienceCentral indicated that the findings could be used to identify language impairment in toddlers and how to curb the problem (ScienceCentral, 2013).

Findings of the Research

The research was carried out to understand why language skills in some children could be delayed. The researchers discovered a direct relationship between the strength of one type of brain wave called gamma wave and toddler's language capability. The gamma wave is responsible for associating visual sight and speech. The waves combine brain proceedings into one act which comes out in form of a speech. The scientists placed soft sensor cups on toddlers' heads to measure brain waves in children. They also discovered that gamma wave allows different parts of the brain to talk to each other more easily. Toddlers with higher gamma wave power scored highly in language understanding and expression compared to those with low gamma wave. The study also revealed how language impairment could be managed in toddlers if discovered at an early age (ScienceCentral, 2013).

What I have learned

It was important to learn that every person has gamma brainwave activity. Another thing is that the level of gamma waves produced in an individual varies. Persons with low level of gamma waves have difficulty in developing language skills while those with more level of gamma waves are intelligent, have good self control and excellent memories (ScienceCentral, 2013).

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Problems of the Research

The research did not investigate if the gamma wave is responsible for language skills at a higher age. The researchers also ignored important factors like children born prematurely or from mothers who abuse drugs. This is because such children are likely to have language impairment. The research also lacks comparison. The researchers should have investigated children from families that have language problems and those with good language history and measure their level of gamma waves to compare. Another problem with the research is that it did not investigate other environmental factors that influence language skills of toddlers. Language skills in toddlers develop more effectively in an atmosphere rich in sounds, sights and continuous exposure to language and speech of others. It is important to note that, apart from gamma wave, factors such as playing contribute greatly to a child language development. Toddlers who play with individuals who know how to speak, are likely to develop language skills faster compared to toddlers who are alone most of the time. Secondly, children who are exposed to television, computers or radio, are likely to learn how to speak at a faster rate. To add on this, if the family members take an initiative of teaching toddlers how to speak, then the toddlers would develop language skills at an early age (ScienceCentral, 2013).

Physiological factors also play an important role in developing language skills. Toddlers who receive a higher level of care are likely to develop excellent language skills. This is because of encouragement and continuous sounds they get from care givers. Secondly, traumatic stress can also limit a toddler's language development. It is important for parents and care givers to eliminate any form of stress so that children can develop effective

language skills (ScienceCentral, 2013).

Conclusion

It is correct to argue gamma waves play an important role in language development. However, a research should be carried out to investigate the specific role of gamma waves. In addition to this, the research should indicate whether the level of gamma waves is hereditary or acquired naturally. Lastly, the research should indicate if gamma waves are more effective in language development than environmental and physiological factors. A good research should provide an alternative to those toddlers with lower gamma radiation. In this case, parents with children having lower gamma waves would be able to look for other measures to improve their children's language skills (ScienceCentral, 2013).

References

ScienceCentral (2013). Language Development and Acquisition: Brain Talk and Brain Waves Retrieved from